



Success Stories

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Volunteers Aid Historic Signal Quilt Project

Symbolic designs and patterns that were sewn into quilts are believed to have functioned as signals to escaping slaves traveling along the Underground Railroad. These quilts were often displayed outside of houses or hanging on fences and served as a system of communication to fugitive slaves on their passage to freedom. The different designs offered instructions regarding escape preparations, safety, and travel routes.

The Shawnee National Forest and Midewin National Tallgrass Prairie each hosted a Passport in Time project focusing on these signal quilts beginning last February. Fifteen PIT volunteers participated in sewing quilts that will ultimately be displayed in the two units' supervisor's offices. The quilts will also be used in schools and libraries for educational programs about the Underground Railroad.



Volunteers set up a sewing shop for their work on the Underground Railroad signal quilt.

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Meeting at Midewin, two friends—Elsie Korman and Jean Brandt—had traveled from their homes in California and Maryland. And they toted their sewing machines along, to boot. In fact, most of the volunteers brought their own sewing machines, cutting boards and wheels, in addition to their quilting expertise.

Forest Service computer assistant Patricia Cline traveled from the Umatilla NF in Washington to volunteer on the project. Others, including Midewin archaeologist Mike Rizo came to learn about this historic art form. At the Shawnee's project, three friends traveled all the way from Pennsylvania to learn about signal quilts, while FS employee Marlene Rivero enlisted her mother and another friend to help.

Work began immediately with the planning of patterns and cutting of fabrics. The volunteers used patterns with names like bow tie, flying geese, cross roads, monkey wrench, bear paw, and the Ohio Star. Each pattern had a different meaning to escaping slaves. For instance, flying geese meant "wait to travel until the geese are flying north." The bear paw indicated a travel route through the hills or mountains that was an animal's path or trace. The bow tie meant there were fresh, clean clothes available at a given house. The monkey wrench referred to escape preparations and gathering supplies and tools for the trip.

The replica quilts started out as individual squares to illustrate each pattern, but soon the pieces began to fit together to form larger quilts. The borders were added around the individual squares, and the quilt tops were completed late in the afternoon on the final day of the project with only a minor amount of blood being spilled. At the Midewin, the batting was added and the quilting completed by dedicated PIT volunteer Jackie Sparrow. Marian Vaughn also kindly volunteered to hand-finish the Shawnee's quilt.

Dr. Clarice Boswell, a local expert on Underground Railroad Quilts, happened to be lecturing at a local library during the PIT project. Boswell's lecture served to reinforce the critical role that communication networks such as signal quilts played in the Underground Railroad as well as how important they are today as a "Window on the Past."



Youth Explore Archaeology on Hiawatha NF

Beginning in 1999, the Hiawatha National Forest has offered a series of two-day, hands-on youth archaeological explorations on Grand Island National Recreation Area. The program has continued to grow, and now includes programming and site tours for the general public.

As the program has evolved, so have the partnerships that make it possible. Now partnering with the Hiawatha NF in these educational efforts are the Alger County Historical Society, the Hiawatha Interpretive Association, Illinois State University and the Sault Ste. Marie Tribe of Chippewa.

In 2001, through a \$13,000 Forest Service conservation education grant, the Hiawatha NF was able to expand an already-popular youth hands-on archaeology workshop to include educational opportunities for the general public, with special outreach efforts to underserved youth.

This past summer, about 1000 youth and visitors were reached through about a dozen special evening programs and through on-site tours of the archaeological site. This represented a 50-fold increase in the impact of the program over the previous two years. Given the number of visitors who pass through Munising, Michigan, and the surrounding areas each summer it is obvious there is still room to grow, and they intend to do so.

With the grant's help, the forest was able to attract noted archaeologist Dr. Jim Skibo of Illinois State University. Site tours were provided primarily by Dr. Skibo, his assistants, and his field school students. This was a tremendous boost to the outreach efforts. In addition to working with the youth during the youth workshops, Dr. Skibo and his associates enthusiastically provided tours of the Grand Island to the visiting public. We look forward to their continued participation in the program.

Evening programs were provided by over a dozen talented individuals. To open the month-long project, a pipe carrier from the Sault Ste. Marie Tribe of Chippewa provided a moving and inspirational sunrise pipe ceremony on Grand Island. Throughout the four weeks that followed, local youth and the general public attended a wide variety of programs about Lake Superior and Grand Island history. Native American storytellers, Great Lakes singers, archaeologists and others shared their knowledge with the crowds. All of the programs, most staged in the open air beside Lake Superior, were very well attended.

Participation from members of the local and regional Native American community strengthened the program and helped build new partnerships. Involvement ranged from program leadership to attendance at programs, from volunteerism to funding partnership. We are excited about the tribes support for development of an exhibit and look forward to working together to develop that exhibit.



Youngsters spent the summer on the Hiawatha NF studying the forest's past.





NFP Funds New Weather Stations In Ohio

Thanks to a unique partnership between the Wayne National Forest, the State of Ohio, and the Northeastern Area State and Private Forestry, six new weather stations will soon be gathering critical information to help fire management officers make important decisions during the fire season.

The stations were purchased with a grant to the State of Ohio Division of Forestry from Northeastern Area State and Private Forestry out of National Fire Plan money.

"These new stations will give us more coverage than we've ever had before," said John Crockett, Assistant Fire Management Officer on the Wayne National Forest. "These weather stations are very high-tech, and everything is electronic. With five more stations up, we should have excellent data throughout the Wayne National Forest area."

Crockett recently visited the town of Chillicothe in southeast Ohio, where the first of six new weather stations was recently erected. Along with Mike Bowden, Fire Supervisor for the Ohio Division of Forestry, and Rick Maier, the Federal Excess Property Administrator for the State of Ohio, the three got a first-hand look at the new station.

The remaining stations will be built this fall by FTS, Forest Technology System, Ltd., a Canadian company that manufactures the Remote Automation Weather Stations (RAWS) purchased by the State of Ohio. These weather stations collect information on temperature, precipitation, dewpoint, wind speed and direction, humidity, and fuel moisture.

Five of the stations the State purchased will be in southeastern Ohio. The sixth will be constructed near Cleveland in the north part of the state.

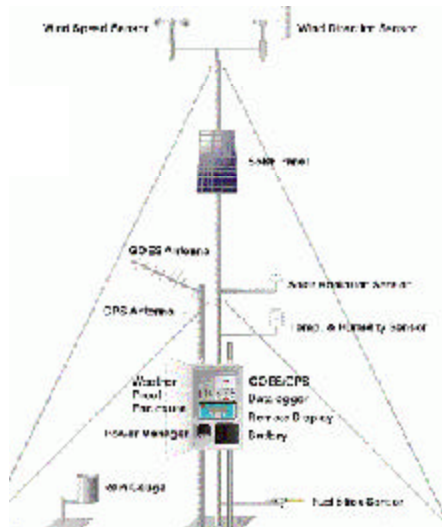
The Wayne NF has assumed responsibility for the maintenance of the stations. Steve Sapio, the OIC of the Ohio Interagency Coordination Center dispatcher, recently returned from training on how to maintain the stations. Crockett explained that actual maintenance is not done on site. "The Wayne will have people go and swap out the parts on the stations and send them in to Boise, Idaho. The actual maintenance will be done through a cooperative partnership with the Bureau of Land Management, which sends the parts back to swap out again when the next maintenance is needed."

The State of Ohio, the Wayne NF, and the National Weather Service will all have access to the data collected by the new weather stations. Until the station was erected at Chillicothe, the only similar station in the area was located north of Ironton on the Dean State Forest.

"Having a broader base of information will allow us to build our database for historical weather patterns," Crockett explained. "We'll know more about the variations in weather across the forest area."

He anticipates using the new data to update the firefighter pocket cards the Wayne NF developed as a result of the 30 Mile Fire incident.

"Information from these stations will become part of our daily briefings during fire season, and will be used during prescribed burns to help us make better decisions," Crockett said.



All of the new weather stations will be installed by the end of the year at sites in the state of Ohio.





Removing Railbeds Essential to Restoring Original Landscape on the Midewin NTP

Why would 118 miles of railroad be constructed in Illinois within an area totaling less than 19,000 acres? How could those miles of railbed be converted back to a landscape looking much the way it did before humans altered the land beyond recognition as a tallgrass prairie?

In answer to the first question, prairie lands first settled and farmed in the mid-nineteenth century were bought and transformed by the Army into the Joliet Army Ammunition Plant beginning in 1940. The sole purpose was to prepare the nation for war through the manufacture of TNT. To move raw materials and finished products to and from various sites within the arsenal, tons of earth had to be moved to construct the necessary infrastructure—including many buildings and miles of roads—over 400 earthen-covered bunkers, and notably, 118 miles of railroad.



Midewin hydrologist Karl Forge measures the depth of a filled area as part of ongoing restoration efforts on the Midewin NTP.

The answer to the second question is more complex. With the closing of the Joliet AAP and increased public interest in preserving some of the few native prairie remnants left in Illinois, the Midewin National Tallgrass Prairie was established in 1996 with the enactment of the Illinois Land Conservation Act.

Under Forest Service management, a large portion of the former arsenal is to be restored to pre-settlement tallgrass prairie conditions. In fact, “Midewin” is the Potawatomi name for their “Grand Medicine society,” an inter-band group that used their power and influence to not only heal individuals, but also keep the greater Potawatomi society in balance. The Midewin society’s emphasis on healing and balance represented our hopes for the new prairie.

Midewin’s topography today, showing little relief, can make it difficult to tell the difference between natural and human-created landforms, or between the natural gradients of some

pastures and those grades created by overlying fill, distinguishable from underlying soils in both color and texture. Although these areas look natural, the original soils underneath tell the real story.

Restoration of the Midewin lands to their original configuration and soil type will eventually result in a more natural appearing prairie landscape. But how will this lofty goal actually be accomplished? Simply put, by moving the earth—spoil piles and areas containing fill will be moved back to their original locations in the railbed cuts.

To begin this task, an ambitious survey has been undertaken to measure both the railbed ballast (or fill material) and the fill or spoil piles of soil moved to make room for the railbeds. In order to build the railroads, certain grades were required: higher areas were dug out while lower areas were filled, resulting in extensive soil movement over the land and vastly altered landscape. The rails and most of the rail ties were removed from Midewin lands by the Army before the land was transferred to the Forest Service in 1997. But the railbeds remain—118 miles of 10- to 20-foot wide and 1/2- to 2-foot deep beds of “ballast,” amounting to roughly half a million tons of coarse gravel.

Surveyors completing field inventories are measuring the railbed fill. Cross sections through railroad grades provide data on volumes of soil removed as opposed to what has been filled in. Estimates are ground-verified with 2-foot topographic maps. To the extent possible, ballast will be buried at least 12 inches in depth and maintained either as below-ground fill or removed. Integrating the soil and ballast may be the best option if ballast is not removed, since ballast alone could cause too much drainage for wetlands restoration.



Wayne Experiments with Plastic Road

Using PVC pipe, the Wayne National Forest recently built an actual “plastic road” for heavy equipment to access and maneuver through deep boggy soils. This innovative technique was used when the drilling rig cored for the footings for the new boardwalk at Vesuvius Lake. The drill rig had to work in the lakebed where the ground was soft and wet.

In anticipation of problems operating on deep mud and silt, the District looked for options. When the plastic pipe road was brought out to the site, the equipment operators had a difficult time trying to hide their disbelief.

“You actually want us to drive up on that thing? Why?” The contractor initially was sure he would have no trouble, but after burying his equipment in the mud, he decided to try the plastic road and to his dismay, it worked!

Long ago when the area now known as Lake Vesuvius was a bustling company town with an iron ore furnace, a road ran from the furnace to the railroad. Oxen teams pulled heavy loads of pig iron overland to the trains. The roads they hauled over were called corduroy roads. Corduroy roads were a common construction technique for roads in those days when trees were plentiful. Tree lengths were cut and lined up to make a path through muddy areas. It was a rough road with much size variation in the logs but served well to distribute the weight of the animals and their load over a wider area. Today’s “plastic road” harkens back to that same principal.

Cindy Henderson, Forest Engineering Technician, said the details for building the road at Vesuvius came from the San Dimas Forest Service Technology and Development Program. The San Dimas Center had produced a publication on the principal of the plastic road with specifics on how one should be constructed.

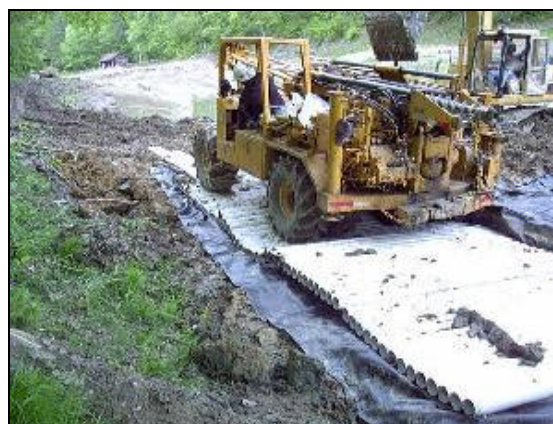
“The system they devised was lightweight, portable, reusable, inexpensive, and easily constructed of readily available materials,” Henderson said. “The plastic road was conceived with use on temporary roads for logging operations in mind.” She marvels that with these specifications a “you-can’t-get-there-from-here” situation became easily resolved.

A geotextile cloth underlayment separated the crossing from soil and allowed water to filter through. It also made the PVC pipe easy to remove after the road was pulled out because nothing had been pushed down into the mud. Henderson said the pipes were linked together and made installation easy. If a pipe was broken, it was easy and inexpensive to replace the one pipe.

She sees many other applications on the forest for the plastic road in the future. “It reduces ruts and allows heavy equipment to cross soils with low bearing capacity,” Henderson said.

A boardwalk being constructed was needed for visitor safety since the road along that shoreline was narrow and crowded close against a rock bluff, then dropped off into the lake. Fishing along the steep slope was both dangerous and difficult. People frequently walked from the day use picnic area where the nature center, dam, and historical site is located, back to the boat dock site where they may have parked their boat or to rent a canoe. The road was dangerous, and for the most part the shoreline was inhospitable, so the idea of a boardwalk was born. With the help of the plastic road, the first phase of boardwalk construction has now been completed.

Wayne NF employees involved in the plastic road initiative were: Mike Freidhof, Tom Eaches, Cindy Henderson, Bill Script, Mark Lindsey, Steve Marchi, and Mike Baines. Also helping was the Summitt Prison Crew.



The drill rig shown here is using a section of plastic road to core footings for the new boardwalk at Lake Vesuvius on the Wayne NF.



New Frontiers Explored on the Hoosier NF

Dr. Julian Lewis is a noted cave biologist who spends quite a bit of time on his stomach squeezing into dark, damp cave passages that would make most people look for another pasttime. Lewis carries with him several small

jars and a supply of rotten Limburger cheese. He buries the jars in the mud and baits them with the cheese in the hope of catching a rare cave species drawn to the sumptuous meal he has left for them. Why? Because—as Dr. Lewis says—“The Hoosier National Forest is a rare gem for subterranean species just waiting to be discovered.”

Roughly half of the Hoosier NF is dominated by karst topography. “Karst” is a term used to describe areas containing caves, sinkholes, and underground streams among other features that are formed by the slow dissolution of rock.

“The Hoosier has many unique karst features, including 136 known caves, one of which has been surveyed and mapped to a length of 17 miles,” according to Kelle Reynolds, the Hoosier’s Karst Coordinator.

In 2000, the Hoosier NF established a partnership with Lewis to survey caves on the forest. To date, Lewis and his team of assistants have sampled over 75 caves and 15 springs.

“Some of their most significant finds include twenty-nine new subterranean species, several of which are extremely rare or species that had never been discovered before,” Reynolds said. Discoveries of species new to science include: a dipluran insect (*Litocampa*) was located in two drainages on the forest; a new milliped of the genus *Pseudotremia*; two new spider species, *Oreophantes* and *Oreonetides*; and several new species of springtail insects, including two *Pseudosinella* undescribed species, two *Onychiurus* undescribed species, *Tomocerus* undescribed species, *Hypogastrura* undescribed species, and two *Sensillanura* undescribed species.

“The forest was ecstatic at the discovery of the amazing world beneath our feet that we had known virtually nothing about,” Reynolds said. She said many other species not formerly known to occur on the forest were found, including millipeds, snails, spiders, crustaceans, and insects. New locations have been discovered for seventeen of the twenty cave species listed as Regional Forester sensitive species for the Hoosier NF.

Reynolds said the information Lewis and his associates gathered is invaluable to the Hoosier NF.

“The work shows us the value of inventorying our resources,” she said. “In the past, the forest had *assumed* that we had significant karst habitat here, but now we *know* we do.”

Based on Lewis’s survey work, two locations within the national forest are considered to be global subterranean hotspots, since they have 20 or more obligate subterranean species—or species that can only survive underground.

The forest has used the results from Lewis’s inventory to provide input into several projects, including a proposed highway expansion project and land acquisitions. Reynolds said the information is also used during the preparation of biological evaluations, conservation assessments and species viability evaluations for determining which new species—if any—should be added to the Regional Forester sensitive species list and which of the current species may be removed. The data is also invaluable in assisting in the management of caves and special areas that contain karst.

Reynolds said Lewis also noted vertebrate species that were present in each of the caves, including some of which appeared to be the federally endangered Indiana bat. In follow-up surveys, two Indiana bat hibernacula were found on the Hoosier NF.

“As our area gears up for the bicentennial celebration of Lewis and Clark’s Corps of Discovery,” Reynolds said, “I’m reminded that there are still undiscovered areas right here in Indiana and that we all still have a lot to learn about the Hoosier National Forest.”



Dr. Lewis and his assistant look at specimens in a dark cave passage beneath the Hoosier NF.



Colorado Campground Sign Surfaces in Indiana

It was one of the more unusual calls that Hoosier National Forest Law Enforcement Officer Lafayette Chamberlain has found himself responding to. It was also a little farther afield than he normally goes to retrieve stolen property.

When college students clean house and move out at semester's end, there are often some interesting items left behind. This particular item—a five-foot tall campground sign—was abandoned on the Purdue University campus at Lafayette, Indiana. The student who first saw the sign thought it should be reported, and called campus police. The University called the White River National Forest in Colorado to report they had found their sign—over 1200 miles east of where it had been stolen.

The Law Enforcement Officer from the White River NF called Chamberlain. He asked if Chamberlain would drive up to Purdue, pick up the sign and keep it for them until they could determine how to ship it back to Colorado. He agreed, and the sign was brought down to the Hoosier NF for safe keeping pending its return.

The sign is now back on a National Forest and—through a chain of people doing the right thing—will eventually be back in place at the Lowry Campground.

Chamberlain speculates that perhaps a student with the last name of Lowry thought it would make an interesting addition to a dorm room or fraternity house. Whatever the case, this sign's strange odyssey through the Midwest will soon be complete when it resumes its rightful place back on the White River NF.



The Lowry Campground sign traveled 1200 miles east after being stolen from its site in Colorado.



Success Story Training Held on the Allegheny

During the week of October 21, SSRS training was held on the Allegheny National Forest. This was part of an ongoing effort to market this new System directly to the Forests, and demonstrate the ease with which stories can be entered and the many benefits of having a database of Success Stories.

Thanks to new SSRS Forest Manager Janeal Hedman, the training sessions held at the Districts were well planned and well attended. Employees entered the System and created new User IDs and learned about the features of the web-based System.

If you and your Forest are ready for this training, contact Andrew Madsen in the R9 RO at (414) 297-3670.



Allegheny Partnerships Benefit Cultural Resource Programs on the Forest

I was in the field Friday afternoon, October 11, at Red Bridge on the Allegheny National Forest with Isabelle Champlin and the archaeological field school of the University of Pittsburgh at Bradford (UPB). Mike Schultz and several of the members of the National Association of Civilian Conservation Corps Chapter 125 based in New Castle, Pennsylvania, were also in attendance.



Mike Shultz of the Civilian Conservation Corps instructs students at Red Bridge Recreation Area, which was once the site of a CCC camp.

The UPB students have completed their field school at Red Bridge. This year they marked and mapped all the features between Highway 321 and the access road to the Red Bridge Fishing Area as part of their field studies.

In the process, they identified several more features including two brick walkways and the heretofore missing main gate to the camp. It is impossible for me to put into words the excitement and enthusiasm of everyone that was there participating in the work at the discovery of these important historical markers.

The CCC boys couldn't thank us enough for this and all that we have done in the past 10 years to place historical

markers throughout the forest at CCC camps and points of interest on the ANF. They currently have the money in hand to erect another historical marker, and would like to do it at ANF Camp 10 at Mill Creek near Ridgway in the not-too-distant future.

For everyone involved in working on the Red Bridge CR report—namely Jack McLaughlin, MacKenzie Caldwell, Martha Brooks, and yours truly, Rick Kandare—and our respective supervisors, I'd like to pass on Mike Schultz's comments about the report. Schultz thinks the scholarship that went into the CR report was excellent. In his estimation, it would probably have taken him over a year working full time to compile the report.

Likewise, Isabelle also had high praise for us on the quality of the Red Bridge CR report. On behalf of our heritage team, I let both of them know we are honored to know that our report has been so well received. We look forward to working with them all again on more important projects.

(This story was written by Rick Kandare, an archeologist on the Allegheny NF.)



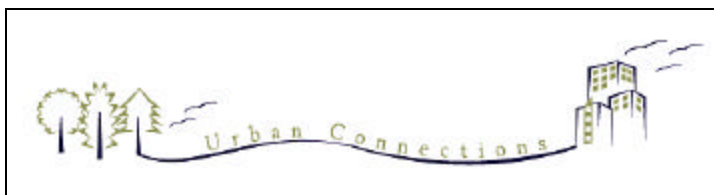


Urban Connections Heads for the Mountains

On October 26-27, the Middlebury-Roxbury districts of the Green Mountain National Forest along with the Forest Service's Eastern Regional Office hosted 16 Boston visitors as part of the Urban Connections effort in the East.

Children, teens, parents, singles, and retirees were transported to the forest from Boston to participate in wildlife viewing, recreation management, community outreach, education and other activities on the forest. They stayed in houses adjacent to the forest owned by Middlebury College, and participated in forest activities over the weekend—and even visited Middlebury's planetarium one evening.

The tour was made up of a unique group of people. Almost every one had strong ties to Boston community groups--neighborhood development, Council on Aging, etc. There was interest in youth and employment opportunities, helping the Forest Service get more information on natural resources into the cities, tying into other groups that teach urban people how to camp and enjoy the forest.



The visit was partly underwritten by a Washington Office Civil Rights Office outreach grant aimed to improve Forest Service contact with and service to underserved populations. Three Regional Office employees and two Green Mountain NF employees provided mini-van transportation from Boston to Vermont and back.

Negotiating Boston neighborhoods in the dark to pick up community people was as much of an adventure as orienteering in the mountains! Middlebury-Roxbury district staff and community partners from Moosalamoo, Green Mountain Club and Middlebury College helped with tours and activities.

Next on the Urban Connections agenda is a followup meeting Dec. 3 in Boston to explore future connections with the community groups and the Forest Service.

One contact is talking about a partnership with two groups in Boston that teach youth conservation and camping skills to bring folks to the Green Mountain NF for a "How To Camp" campout. Also to be continued are discussions on job and volunteer opportunities with the Forest Service, and the possibility of an "Urban Treehouse" —a conservation education site—somewhere in the greater Boston area.

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